

Femtosecond and Excimer Lasers Highlight an Eventful Year

2006 was a very important and eventful year for the refractive laser division of Carl Zeiss Meditec. Following is a perspective from Stefan Kaiser, Director, Refractive Lasers at Carl Zeiss Meditec.

At the end of 2005, we launched a new version of the CRS-Master, a third generation system for customized refractive treatments with the MEL 80 excimer laser.

Features like the OcuLign™ eye registration, for perfect treatment positioning and topography guided treatment options incorporating several new approaches for the correction of complex corneal irregularities, set a new standard in customized vision correction.

As a result, the new version of the CRS-Master has been extremely well received, with the majority of MEL 80 customers also opting for the CRS-Master.

In August 2006, the FDA granted approval for sale of the MEL 80 excimer laser for myopic corrections in the U.S. This was a very important milestone that will enable Carl Zeiss Meditec to provide the most advanced refractive laser technologies worldwide.

Outcomes like 41% of patients seeing better than 20/12.5 uncorrected validates the superior performance of the MEL 80.

In the meantime, we completed the enrollment phase of the Hyperopia clinical trials. On page 21 you will find an article on the most recent U.S. study results.

We are already planning for the next study phases in order to continuously expand the range of approved indications.

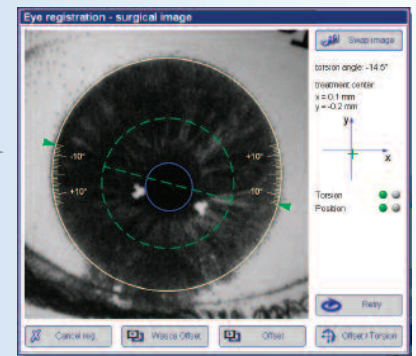
Although these activities alone demonstrate our commitment to refractive laser technology, there were also other products on which we focused.



CRS-Master Diagnostics



CRS-Master Treatment Planning



OcuLign Eye Registration



VisuMax Flap Cut



MEL 80 Refractive Treatment

The Carl Zeiss Meditec system solution for refractive laser surgeons

Parallel to the product enhancements of our excimer platform, we went through a series of successful initial clinical studies with our femtosecond system.

In one study we investigated the outcomes of the combination system consisting of the VisuMax femtosecond system for flap creation and the MEL 80 for the subsequent refractive correction; secondly we conducted a study to evaluate the feasibility of an all-femto refractive procedure.

At the American Academy of Ophthalmology meeting in Las Vegas, Dr. Blum (Helios clinic, Erfurt, Germany) presented the outcomes with the combination system consisting of VisuMax and MEL 80. As expected, the results have been excellent and emphasize the performance of both systems.

Professor Sekundo from the University of Mainz presented the first clinical case reports with the revolutionary new approach called FLEx (Femtosecond Lenticule Extraction).

Although this is early feasibility data and we expect an intense phase of clinical research, the feasibility of refractive corrections is an impactful demonstration of the synergy between refractive laser

confidence and ZEISS optics expertise. Both topics are featured in the article on page 19.

In addition to the clinical results we presented a preview of the femtosecond laser system at the recent AAO. The response was very positive and it is fair to say that this was probably the most outstanding product presentation of the exhibition. Consequently, our Innovations Symposium “Refractive Highlights” was very well attended.

We are convinced that we are just starting to explore the potential of femtosecond lasers in corneal surgery and expect a rapid evolution of this technology both in terms of outcomes and indications. The enhancement of the clinical capabilities is one principal focus of our clinical research.

With the addition of the superior technology femtosecond system, Carl Zeiss Meditec will become the only provider of a complete system solution for refractive laser surgery.

For each step in the refractive laser surgery workflow we provide best-of-class technology, from diagnostics to treatment planning, from flap creation to the actual refractive correction.